

## EXHIBIT "C"

>IPI00044749.2 ACCESSION:IPI00044749 NID: Homo sapiens (Human).  
SERINE/THREONINE-PROTEIN KINASE NEK1. IPI\_human  
Length = 1258

Score = 2184 bits (5659), Expect = 0.0  
Identities = 1123/1258 (89%), Positives = 1123/1258 (89%), Gaps = 44/1258 (3%)

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Query: 1  MEKYVRLQKIGEGSFGKAILVKSTEDGRQYVIKEINIXXXXXXXXXXXXXXVAVLANMKH 60
          MEKYVRLQKIGEGSFGKAILVKSTEDGRQYVIKEINI VAVLANMKH
Sbjct: 1  MEKYVRLQKIGEGSFGKAILVKSTEDGRQYVIKEINISRMSSKEREESRREVAVLANMKH 60

Query: 61  PNIVQYRESFEENGSLYIVMDYCEGGDLFKRINAQKGVLFQEDQILDWVFQICLALKHVH 120
          PNIVQYRESFEENGSLYIVMDYCEGGDLFKRINAQKGVLFQEDQILDWVFQICLALKHVH
Sbjct: 61  PNIVQYRESFEENGSLYIVMDYCEGGDLFKRINAQKGVLFQEDQILDWVFQICLALKHVH 120

Query: 121  DRKILHRDIKSQNIFLTKDGTQVQLGDFGIARVLNSTVELARTCIGTPYYLSPEICENKPY 180
          DRKILHRDIKSQNIFLTKDGTQVQLGDFGIARVLNSTVELARTCIGTPYYLSPEICENKPY
Sbjct: 121  DRKILHRDIKSQNIFLTKDGTQVQLGDFGIARVLNSTVELARTCIGTPYYLSPEICENKPY 180

Query: 181  NNKSDIWALGCVLYELCTLKHAFEAGSMKNLVLKIIISGSFPPVSLHYSYDLRSLVSQLFK 240
          NNKSDIWALGCVLYELCTLKHAFEAGSMKNLVLKIIISGSFPPVSLHYSYDLRSLVSQLFK
Sbjct: 181  NNKSDIWALGCVLYELCTLKHAFEAGSMKNLVLKIIISGSFPPVSLHYSYDLRSLVSQLFK 240

Query: 241  RNPRDRPSVNSILEKGFIKRIEKFSLPQLIAEEFCLKTFSKFGSQPIPAKRPASGQNSI 300
          RNPRDRPSVNSILEKGFIKRIEKFSLPQLIAEEFCLKTFSKFGSQPIPAKRPASGQNSI
Sbjct: 241  RNPRDRPSVNSILEKGFIKRIEKFSLPQLIAEEFCLKTFSKFGSQPIPAKRPASGQNSI 300

Query: 301  SVMPAQKITKPAAKYGIPLAYKKYGDKKLHEKKPLQKHQAHTPEKRVNTGEERRKISE 360
          SVMPAQKITKPAAKYGIPLAYKKYGDKKLHEKKPLQKHQAHTPEKRVNTGEERRKISE
Sbjct: 301  SVMPAQKITKPAAKYGIPLAYKKYGDKKLHEKKPLQKHQAHTPEKRVNTGEERRKISE 360

Query: 361  EAARKRRLEFXXXXXXXXXXXXSLMKAEQMKRQEKERLERINRAREQGWRNVLSAGGSGE 420
          EAARKRRLEF SLMKAEQMKRQEKERLERINRAREQGWRNVLSAGGSGE
Sbjct: 361  EAARKRRLEFIEKEKKQKDQIISLMKAEQMKRQEKERLERINRAREQGWRNVLSAGGSGE 420

Query: 421  VKAPFLGSGGTIAPSSFSSRGQYEHYHAIFDQMQQRAEDNEAKWKREIYGRGLPE---- 476
          VKAPFLGSGGTIAPSSFSSRGQYEHYHAIFDQMQQRAEDNEAKWKREIYGRGLPE
Sbjct: 421  VKAPFLGSGGTIAPSSFSSRGQYEHYHAIFDQMQQRAEDNEAKWKREIYGRGLPERGIL 480

Query: 477  -----RQKGQLAVERAKQVEEFLQR 496
          RQKGQLAVERAKQVEEFLQR
Sbjct: 481  PGVRPGFPYGAAGHHFPDADDIRKTLKRLKAVSKQANANRQKGQLAVERAKQVEEFLQR 540

Query: 497  KREAMQNKARAEGHVMYLARLRQIRLQNFNERQQIKAKLRGEKKEANHSEGQEGSEADM 556
          KREAMQNKARAEGHVMYLARLRQIRLQNFNERQQIKAKLRGEKKEANHSEGQEGSEADM
Sbjct: 541  KREAMQNKARAEGHVMYLARLRQIRLQNFNERQQIKAKLRGEKKEANHSEGQEGSEADM 600

Query: 557  RRKKIESLKAHANARA AVLKEQLXXXXXXXXXXXXXVWEEHLVAKGVKSSDVSPPLGQHE 616
          RRKKIESLKAHANARA AVLKEQL VWEEHLVAKGVKSSDVSPPLGQHE
Sbjct: 601  RRKKIESLKAHANARA AVLKEQLERKRKEAYEREKKVWEEHLVAKGVKSSDVSPPLGQHE 660

Query: 617  TGGSPSKQQMRSVISVTSALKEVGVDSSTLDTRETSEEMQKTNNAISSKREILRLNENL 676
          TGGSPSKQQMRSVISVTSALKEVGVDSSTLDTRETSEEMQKTNNAISSKREILRLNENL
Sbjct: 661  TGGSPSKQQMRSVISVTSALKEVGVDSSTLDTRETSEEMQKTNNAISSKREILRLNENL 720

Query: 677  KAQEDEKGMQNLSDTFEINVHEDAHEKEKSVSSDRKKWEAGGQLVIPLDELTLDTSFS 736
          KAQEDEKGMQNLSDTFEINVHEDAHEKEKSVSSDRKKWEAGGQLVIPLDELTLDTSFS
Sbjct: 721  KAQEDEKGMQNLSDTFEINVHEDAHEKEKSVSSDRKKWEAGGQLVIPLDELTLDTSFS 780
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Query: 737 TTERHTVGEVIKLGPNNGSPRRWKGSPDSDLKILGXXXXXXXXXXXXXXXXXIRSEISPEG 796  
TTERHTVGEVIKLGPNNGSPRRWKGSPDSDLKILG IRSEISPEG  
Sbjct: 781 TTERHTVGEVIKLGPNNGSPRRWKGSPDSDLKILGEAELQLQTELENTTIRSEISPEG 840

Query: 797 EKYKPLITGEKKVQCISHEINPSAIVDSPVETKSPEFSEASPQMSLKLEGNLEEPDDLET 856  
EKYKPLITGEKKVQCISHEINPSAIVDSPVETKSPEFSEASPQMSLKLEGNLEEPDDLET  
Sbjct: 841 EKYKPLITGEKKVQCISHEINPSAIVDSPVETKSPEFSEASPQMSLKLEGNLEEPDDLET 900

Query: 857 EILQEPSGTNKDESLPCTITDVWISSEKETKETQSADRITIQENEVSEDGVSSTVDQLSD 916  
EILQEPSGTNKDESLPCTITDVWISSEKETKETQSADRITIQENEVSEDGVSSTVDQLSD  
Sbjct: 901 EILQEPSGTNKDESLPCTITDVWISSEKETKETQSADRITIQENEVSEDGVSSTVDQLSD 960

Query: 917 IHIEPGTNDQSQHSKCDVDKSVQPEPFFHKVVHSEHLNLVPQVQSVQCSPEESFAFRSHSH 976  
IHIEPGTNDQSQHSKCDVDKSVQPEPFFHKVVHSEHLNLVPQVQSVQCSPEESFAFRSHSH  
Sbjct: 961 IHIEPGTNDQSQHSKCDVDKSVQPEPFFHKVVHSEHLNLVPQVQSVQCSPEESFAFRSHSH 1020

Query: 977 LPPKNKNKNSLLIGLSTGLFDANNPKMLRTCSLPDLSKLFRTLMDVPTVGDVVRQXXXXXX 1036  
LPPKNKNKNSLLIGLSTGLFDANNPKMLRTCSLPDLSKLFRTLMDVPTVGDVVRQ  
Sbjct: 1021 LPPKNKNKNSLLIGLSTGLFDANNPKMLRTCSLPDLSKLFRTLMDVPTVGDVVRQDNLEID 1080

Query: 1037 XXXXXXXXGPSDSEDIVFEETDTDLQELQASMEQLLREQPGXXXXXXXXXXVLKNSDVEP 1096  
GPSDSEDIVFEETDTDLQELQASMEQLLREQPG VLKNSDVEP  
Sbjct: 1081 EIEDENIKEGPSDSEDIVFEETDTDLQELQASMEQLLREQPGEEYSEEEESVLKNSDVEP 1140

Query: 1097 TANGTDVAEDDNPSSSESALNEEWHSDNSDGEIASECECDSVFNXXXXXXXXXXXXMGFE 1156  
TANGTDVAEDDNPSSSESALNEEWHSDNSDGEIASECECDSVFN MGFE  
Sbjct: 1141 TANGTDVAEDDNPSSSESALNEEWHSDNSDGEIASECECDSVFNHLEELRLHLEQEMGFE 1200

Query: 1157 KFFEVEYKIKAIHEDEDENIEICSKIVQNILGNEHQHLYAKILHLVMADGAYQEDNDE 1214  
KFFEVEYKIKAIHEDEDENIEICSKIVQNILGNEHQHLYAKILHLVMADGAYQEDNDE  
Sbjct: 1201 KFFEVEYKIKAIHEDEDENIEICSKIVQNILGNEHQHLYAKILHLVMADGAYQEDNDE 1258